

Operating/Service Instructions

RIDING MOWER

IMPORTANT

Model No.

132-412

SAFE OPERATION PRACTICES - RIDING MOWERS

1. Know the controls and how to stop quickly—**READ THE OWNER'S MANUAL.**
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. **Keep children and pets a safe distance away.**
4. Clear work area of objects which might be picked up and thrown.
5. Disengage all attachment clutches and shift into neutral before attempting to start engine (motor).
6. Disengage power to attachments and stop engine (motor) before leaving operator position.
7. Disengage power to attachment(s) and stop engine (motor) before making any repairs or adjustments.
8. Disengage power to attachments when transporting or not in use.
9. Take all possible precautions when leaving vehicle unattended; such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
10. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
16. Handle gasoline with care—it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine (motor) indoors.
17. Keep vehicle and attachments in good operating condition and keep safety devices in place. Use guards as instructed in owner's manual.
18. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
19. Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.
20. Allow engine to cool before storing in any enclosure.
21. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
22. Vehicle and attachments should be stopped and inspected for damage after striking a foreign object and the damage should be repaired before restarting and operating the equipment.
23. Do not change engine governor settings or over-speed engine.
24. When using vehicle with mower:
 - (1) Mow only in daylight or in good artificial light.
 - (2) Never make a cutting height adjustment while engine (motor) is running if operator must dismount to do so.
 - (3) Shut engine (motor) off when removing grass catcher and/or unclogging chute.
 - (4) Check blade mounting bolts for proper tightness at frequent intervals.
25. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

ASSEMBLY

GRASS CATCHER Model No. 192-010 is available as optional equipment for the mower shown in this manual.

WARNING

1. The mower should not be operated without the entire grass catcher or chute deflector in place.
2. The mower should not be operated without the protective shield on the rear of the deck in place.

NOTE

Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag No. 764-121.

IMPORTANT: After striking a foreign object, stop the engine (motor). Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

NOTE

Reference to right-hand or left-hand side of machine is from the driver's seat facing forward.

Your mower is shipped assembled except for the steering wheel and seat.

STEERING WHEEL See figure 1.

1. Attach steering wheel rim to steering wheel L. H. and R. H. with self tapping screws.
2. Attach steering wheel assembly to steering wheel tube with the two outside hex bolts and lock nuts.
3. Slip washer over steering shaft against the bearing.
4. Attach steering wheel assembly complete to the steering shaft. Be sure that the front wheels are square. Use a drift pin to align the holes in the steering wheel assembly and the steering shaft and use a hex bolt and nut to complete assembly.

STEERING WHEEL ASSEMBLY (Optional)

See figure 1-A.

- Step 1. Line up the hole in the steering column and the hole in the tubing and drive in the small roll pin with a hammer.

NOTE

It may be necessary to use a drift to line up the holes.

- Step 2. Place the end caps on the spacer.
- Step 3. Slide the spacer over the tubing until it lays flush against the steering box.
- Step 4. Align the hole in the steering wheel and tubing and drive in the large roll pin with a hammer.
- Step 5. Place the cap on the steering wheel.

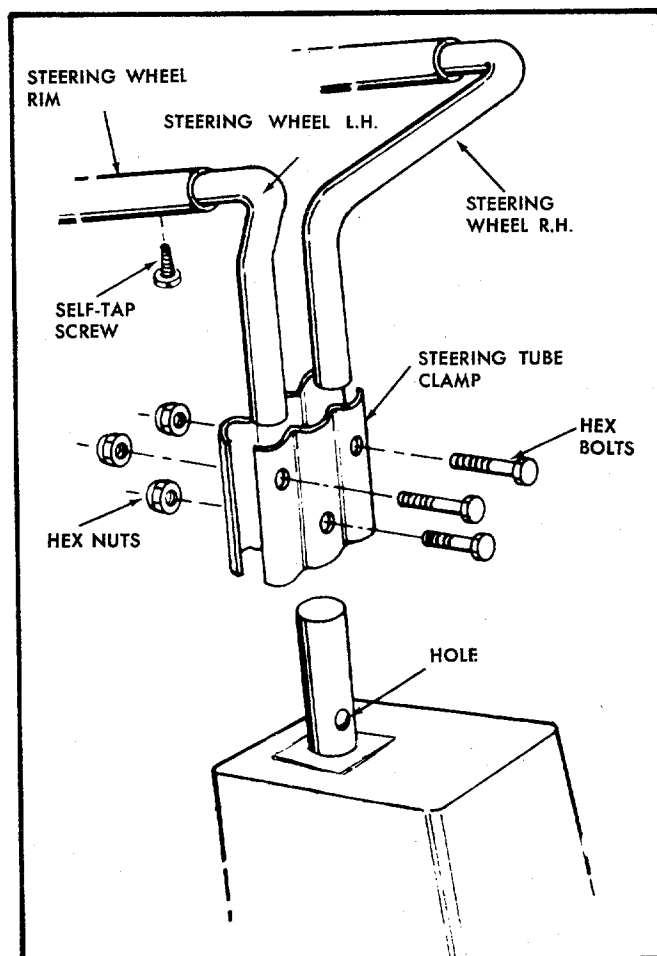


FIGURE 1. STEERING WHEEL

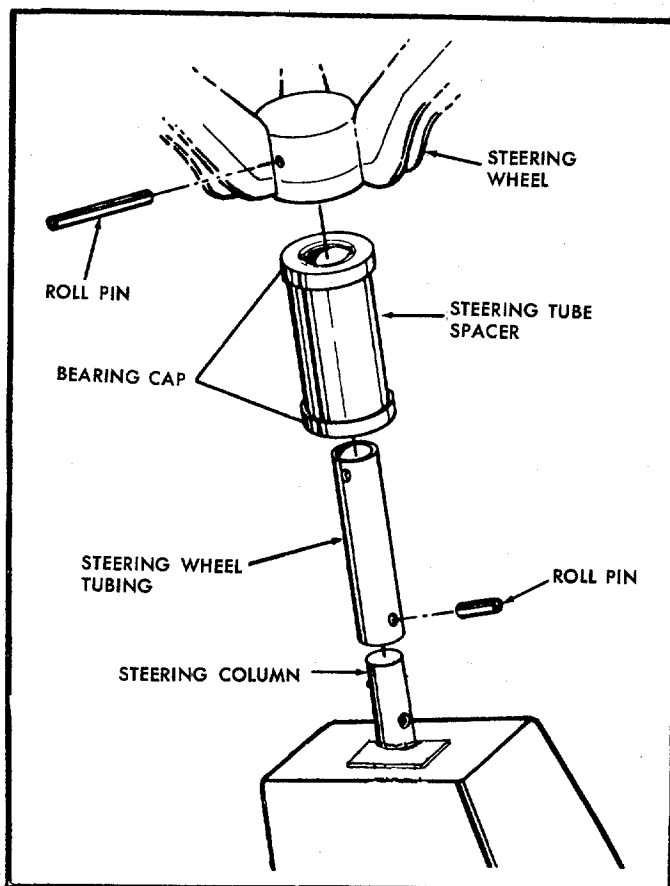


FIGURE 1-A. OPTIONAL STEERING WHEEL

SEAT ASSEMBLY

Step 1. Assemble the seat to the seat bracket with the large carriage bolt and nut. See figure 2.

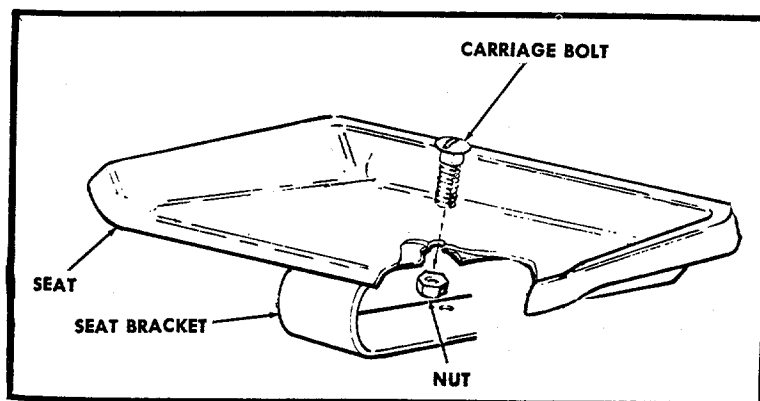


FIGURE 2. SEAT ASSEMBLY

Step 2. Place the seat cover over the seat and tie the string on the back side. See figure 3.

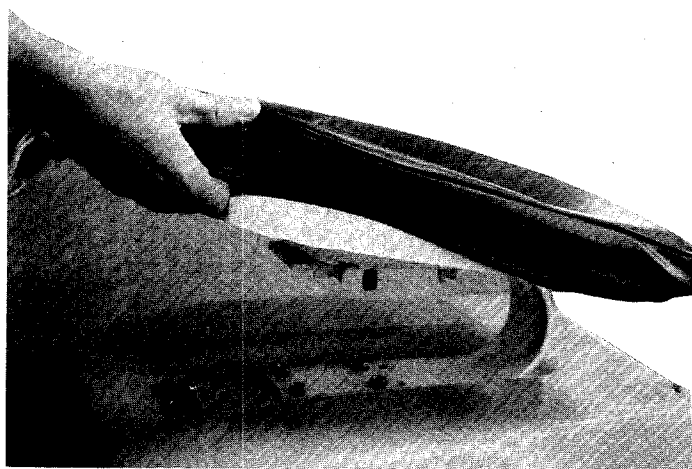


FIGURE 3. SEAT COVER ASSEMBLY

CONTROLS See figure 4.

THROTTLE CONTROL

The throttle control is used to regulate the engine speed and to activate the choke on the engine. To get the maximum efficiency on cutting, the throttle should be in the FAST position when operating the mower. Pushing the throttle all the way forward, past FAST will choke the engine.

IGNITION KEY

The key must be turned to the ON position before you pull the recoil handle to start the engine. Remove the key when the mower is not in use. Turn the key to the left to the OFF position to stop the engine.

INTERLOCKS (Not Shown)

An interlock safety switch is located on the clutch pedal and the lift and disengagement lever.

The Clutch Pedal must be depressed all the way down and locked and the Lift and Disengagement Lever must be in the STOP position (forward) before the engine can be started.

GEAR SHIFT LEVER

The gear shift lever has three positions, FORWARD, NEUTRAL and REVERSE. The clutch pedal must be depressed and the rider must not be moving when shifting gears. You may not be able to shift gears when the clutch is locked in the disengaged position. Do not force the shift lever. Release the clutch pedal slightly to line up the shifting collar in the transmission and then try to shift.

BRAKE

To operate the brake depress the right pedal all the way down. To lock the brake in the park position, pivot the pedal forward with your foot as you depress it. It will stay in the depressed position. To release the parking brake, pivot the pedal to the rear.

LIFT AND DISENGAGEMENT LEVER

The lift and disengagement lever is used to raise and lower the cutting deck, set the cutting height, and disengage the cutting blades.

Move the lever to the left and move the lever all the way forward and lock it to disengage the blades. The lever may be set in any one of the five cutting height positions. This lever works in conjunction with the deck wheel adjusters.

DECK WHEELS

Always set both deck wheels in the same relative position. Set these wheels after you set the Lift and Disengagement Lever so they just clear the ground. This will prevent scalping the grass.

CLUTCH PEDAL

The Clutch Pedal is on the left side of the mower. When it is depressed it disengages the transmission from the engine. The clutch must be depressed when you shift gears or come to a stop. It can be locked in the disengaged position for starting by depressing it all the way and pivoting it forward to the locked position. To release the clutch, pivot it to the rear and it will be unlocked. Release the clutch pedal slowly.

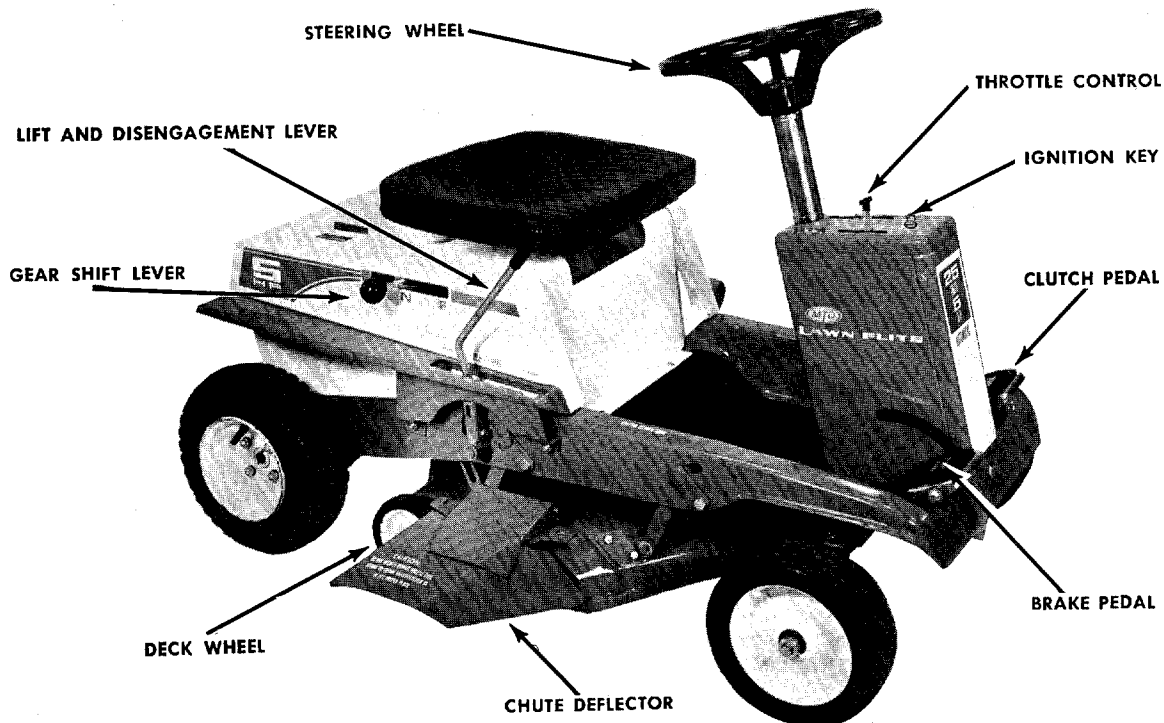


FIGURE 4. CONTROLS (Shown with Optional Steering Wheel)

OPERATING INSTRUCTIONS

CAUTION

1. Keep all shields and guards in place.
2. Before leaving operator's position:
 - Shift controls into neutral
 - Set parking brake
 - Disengage attachment drive
 - Shut off engine
 - Remove ignition key
3. Wait for all movement to stop before servicing machine.
4. Keep people and pets a safe distance away from machine.

NOTE

The farther forward the Stop Lever is set, the faster your ground speed.

Depressing the clutch pedal at any time will slow you down or, if depressed all the way, will stop the mower.

STOPPING

Engine—Turn the ignition key to the left to the OFF position.

Rider—Depress the clutch and brake pedals.

Blades—Move the lift and disengagement lever all the way forward and lock it.

STARTING THE ENGINE

1. Be sure the crankcase is filled with oil as recommended in the engine manual and put regular gasoline in the gasoline tank.
2. Be sure the fuel shut off valve located on the carburetor is open.
3. Attach the wire to the spark plug.
4. Depress the clutch pedal and lock it down.
5. Move the lift and disengagement lever forward to the disengaged position and lock it.
6. Set the throttle control lever in the CHOKE position.
7. Turn the ignition key to the ON position, twist the recoil starter handle until it is free and pull it with a quick steady motion. After the engine starts, return the recoil starter handle and twist it until it locks. See figure 5.

NOTE

If you do not do this the engine will quit running as soon as you engage the clutch or blades.

8. To stop the mower turn the ignition key to the OFF position and remove the key when the rider is not in use.



FIGURE 5. RECOIL STARTER

PUTTING THE RIDER IN MOTION

1. Advance the throttle control from $\frac{3}{4}$ to full throttle to prevent strain on the engine and to operate the cutting blades.
2. Hold the clutch pedal down with your right foot.
3. Place the gear shift lever in either the FORWARD or REVERSE position.
4. Slowly release the clutch pedal.
5. To stop the rider, depress the clutch pedal and the brake pedal.
6. The blades can be engaged either while moving or while standing still. Move the lift and disengagement lever back slowly until the blades are running.

MAINTENANCE AND ADJUSTMENTS

THROTTLE CONTROL See figure 6.

To Check Operation:

Remove Air Cleaner. Move remote control lever to CHOKE position. The carburetor choke should then be closed. Move the remote control lever to STOP. Control lever on carburetor should then make good contact with stop switch to short out ignition.

To Adjust

Place remote control lever on equipment in FAST (high speed) position.

Lever C on carburetor should be just touching choke arm at D. To adjust, loosen casing clamp screw A on blower housing. Move control casing B forward or backward until correct position is obtained. Tighten screw A.

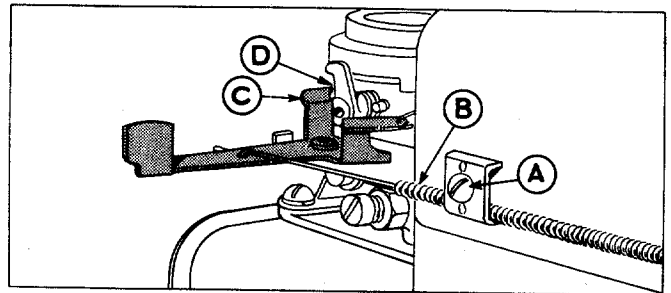


FIGURE 6. THROTTLE ADJUSTMENT

Recheck operation of controls after adjustment. Replace air cleaner.

CARBURETOR ADJUSTMENTS See figure 7.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load.

Initial Adjustment:

Turn needle valve clockwise to close it. Then open 2 turns. This initial adjustment will permit the engine to be started and warmed up before making final adjustment.

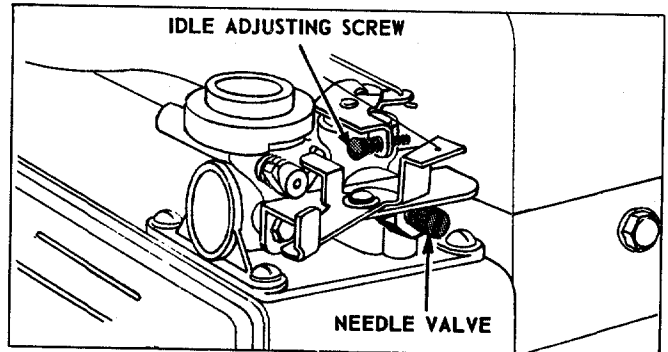


FIGURE 7. CARBURETOR ADJUSTMENT

Final Adjustment:

With engine running at normal operating speed (approximately 3000 RPM without load) turn needle valve clockwise until engine starts to lose speed (lean mixture). Then slowly turn needle valve counterclockwise past the point of smoothest operation until engine just

begins to run unevenly. This mixture will give best performance under load.

To check adjustment move engine control from SLOW to FAST speed. If engine tends to stall or die out, it usually indicates that the mixture is slightly lean and it may be necessary to open the needle valve slightly to provide a richer mixture. This richer mixture may cause a slight unevenness in idling.

CHAIN ADJUSTMENT

After the first five hours of operation the initial slack should be removed from the chain. The chain should be tight enough so that it deflects approximately $\frac{1}{2}$ " when it is depressed with the thumb.

To Adjust:

The adjusting bolt is located under the frame, above the cutting deck on the right side of the mower. Turn the adjusting bolt clockwise with an open end wrench until the chain reaches the proper tension.

NOTE

If the transmission mounting plate will not slide forward to adjust the chain tension, it may be necessary to loosen the four nuts mounting the transmission to the frame.

BRAKE ADJUSTMENT See figure 8.

To adjust the brake, tighten the locknut one half turn and then test the brakes. Repeat if necessary. The brake is located by the right rear wheel inside the frame.

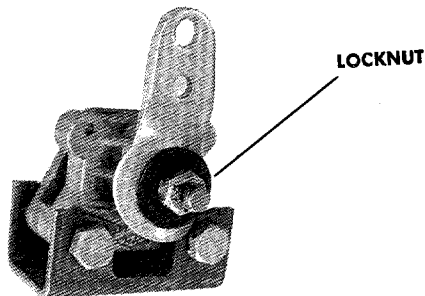


FIGURE 8. BRAKE ADJUSTMENT

BLADES

WARNING

Disconnect the spark plug wire and remove the ignition key before removing the blades.

Sharp and balanced blades are essential for efficient mowing and long mower and engine life. When sharpening blades, file equal amounts of metal from each side. The blades should be balanced before they are reinstalled. An unbalanced blade will cause excessive vibration and undue wear on the mower and the engine. When reassembling, all parts must be installed in the proper order and fastened securely.

Remove the $\frac{3}{8}$ " bolt and lockwasher. Pull the blade and adapter off the mower deck. To remove the adapter from the blade, remove the two $\frac{5}{16}$ " bolts, lockwashers and nuts. See figure 9.

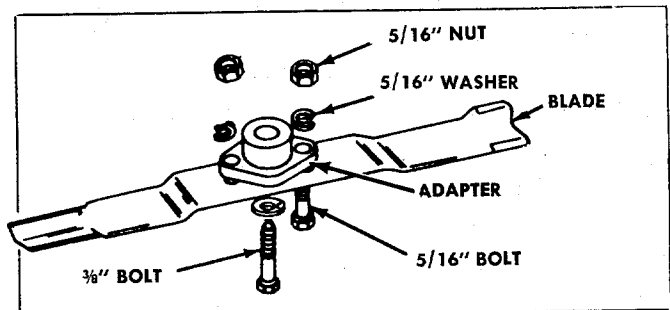


FIGURE 9 . BLADE REMOVAL

MOWER DECK

The underside of the mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will invite rust and corrosion and may cause an uneven discharge of grass clippings at the next mowing.

The deck may be cleaned by tilting the mower on its front wheels until the frame and the steering wheel supports the entire unit. Scrape clean with a suitable tool or by washing with a stream of water from a garden hose. Be sure to disconnect the spark plug wire and ground it while performing this maintenance.

BELT REMOVAL See figure 10.

To Remove the Deck Belt:

- Step 1. Put the Lift and Disengagement Lever into the ENGAGED position.
- Step 2. Remove both keepers on the engine belt guard.
- Step 3. Remove the two keepers on the deck pulley.
- Step 4. Remove the shoulder bolt on the deck pulley.
- Step 5. Move the Lift and Disengagement Lever into the disengaged position and remove the belt.
- Step 6. Reassemble in reverse order with the new belt.

When assembling the idler be sure the longer shoulder is up so the idler turns free.

To Remove the Transmission Belt:

- Step 1. Put the Lift and Disengagement Lever into the engaged position.
- Step 2. Put the parking brake on.
- Step 3. Remove the entire engine belt guard.
- Step 4. Remove the nut holding the idler in place.
- Step 5. Remove the transmission pulley.
- Step 6. Raise the cutting deck and remove the deck belt from the engine pulley.
- Step 7. Remove and replace the transmission belt.
- Step 8. Reassemble in reverse order.

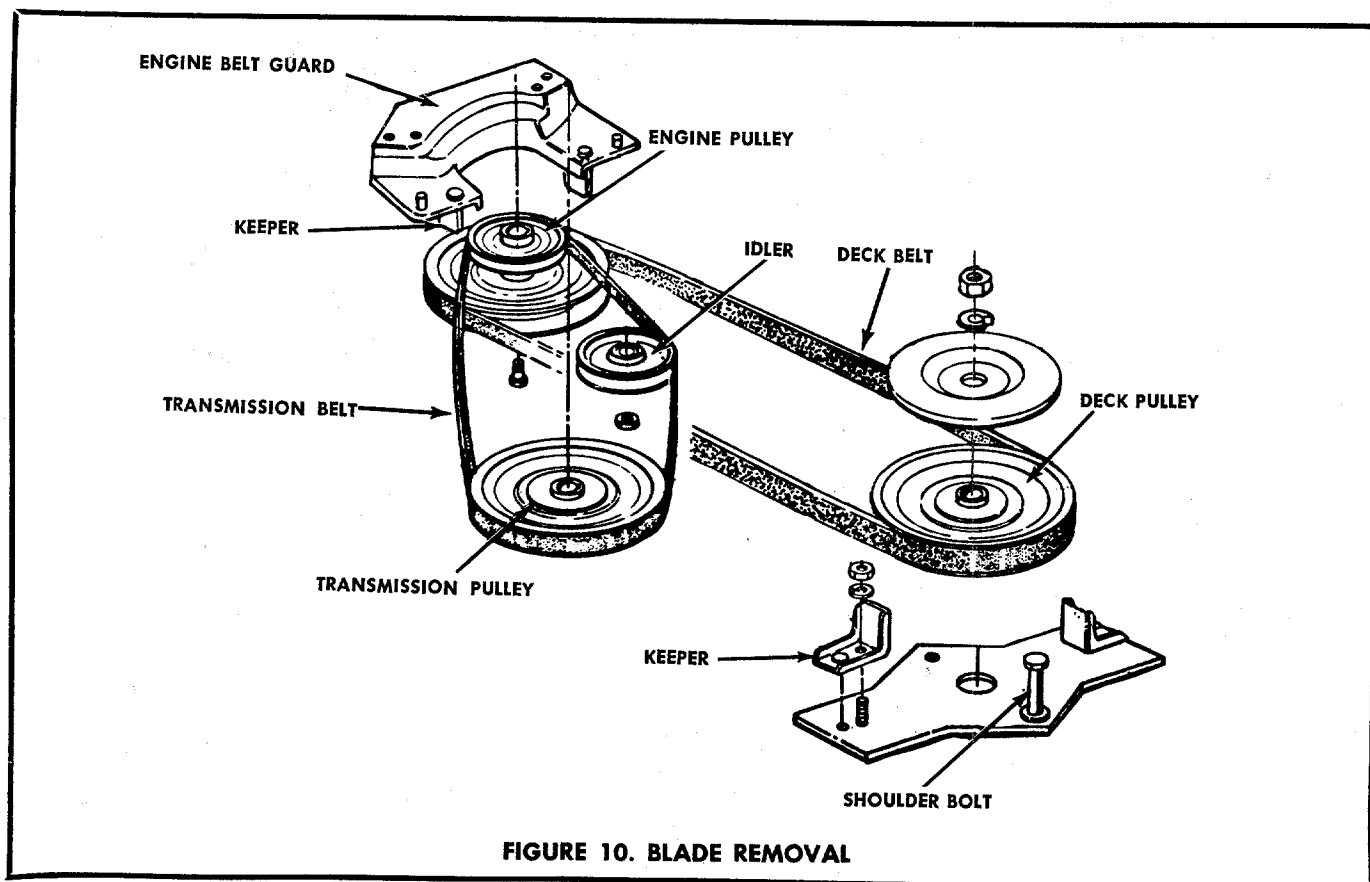


FIGURE 10. BLADE REMOVAL

LUBRICATION

1. **Engine.** Maintain the engine oil according to the engine manual.
2. **Bearings.** The following bearings are oil impregnated and do not require lubrication, however, their normal life can be extended by lubricating them once a season with a light, non-detergent oil.
 - A. King Pin Bearings (total 4 bearings)
 - B. Rear Axle Bearings (total 2 bearings)
 - C. Front Wheel Bearings (total 4 bearings)
 - D. Deck Wheel Bearings (total 4 bearings)
3. **Throttle Control and Cable.** Wipe oiled rag along entire length of cable.
4. **Chain.** Wipe oiled rag along entire length of chain.

NOTE

Under extremely dusty conditions do not oil the chain.

5. **Linkage.** Oil all deck linkage and height adjustment linkage.
6. **Transmission.** Lubricated at the factory, does not require checking. Lubricate with 4 oz. of Lubriplate No. 310 if disassembled.

OFF-SEASON STORAGE

NOTE

Engines to be stored over 30 days should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts, fuel filters, fuel lines and tank.

1. Remove all fuel from fuel tank. Run the engine until it stops from lack of fuel. The small amount of fuel that remains in the sump of the tank should then be removed by absorbing it with a clean, dry cloth.
2. While engine is still warm, drain oil from crankcase. Refill with fresh oil.
3. Remove spark plug, pour 1 ounce of SAE 30 oil into cylinder and crank slowly to distribute oil. To prevent accidental starting, DO NOT replace the spark plug.
4. Clean dirt and chaff from cylinder, cylinder head fins and blower housing.
5. Clean all grass from underside of deck.
6. Clean the air filter.
7. Place blocks under frame of mower so that the wheels are off the ground.
8. Cover all bare metal parts, such as the mowing edge of the blades, with grease to prevent rusting.
9. Cover the mower with a tarpaulin or other protective covering.

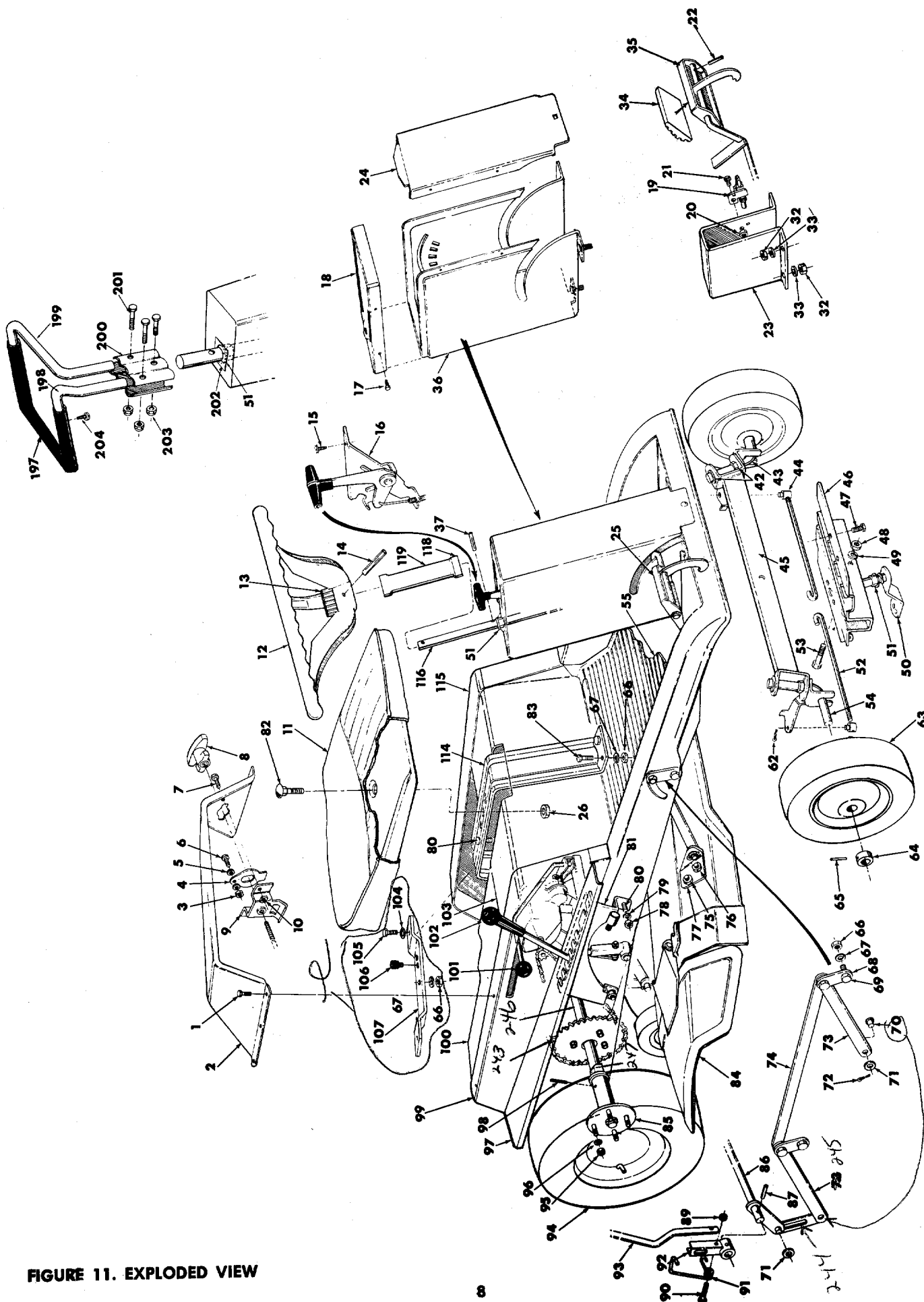


FIGURE 11. EXPLODED VIEW

NOTE: If for any reason Disc Brake is disassembled, be sure round end of push pins (Ref. No. 130) is toward the cam lever (Ref. No. 131).

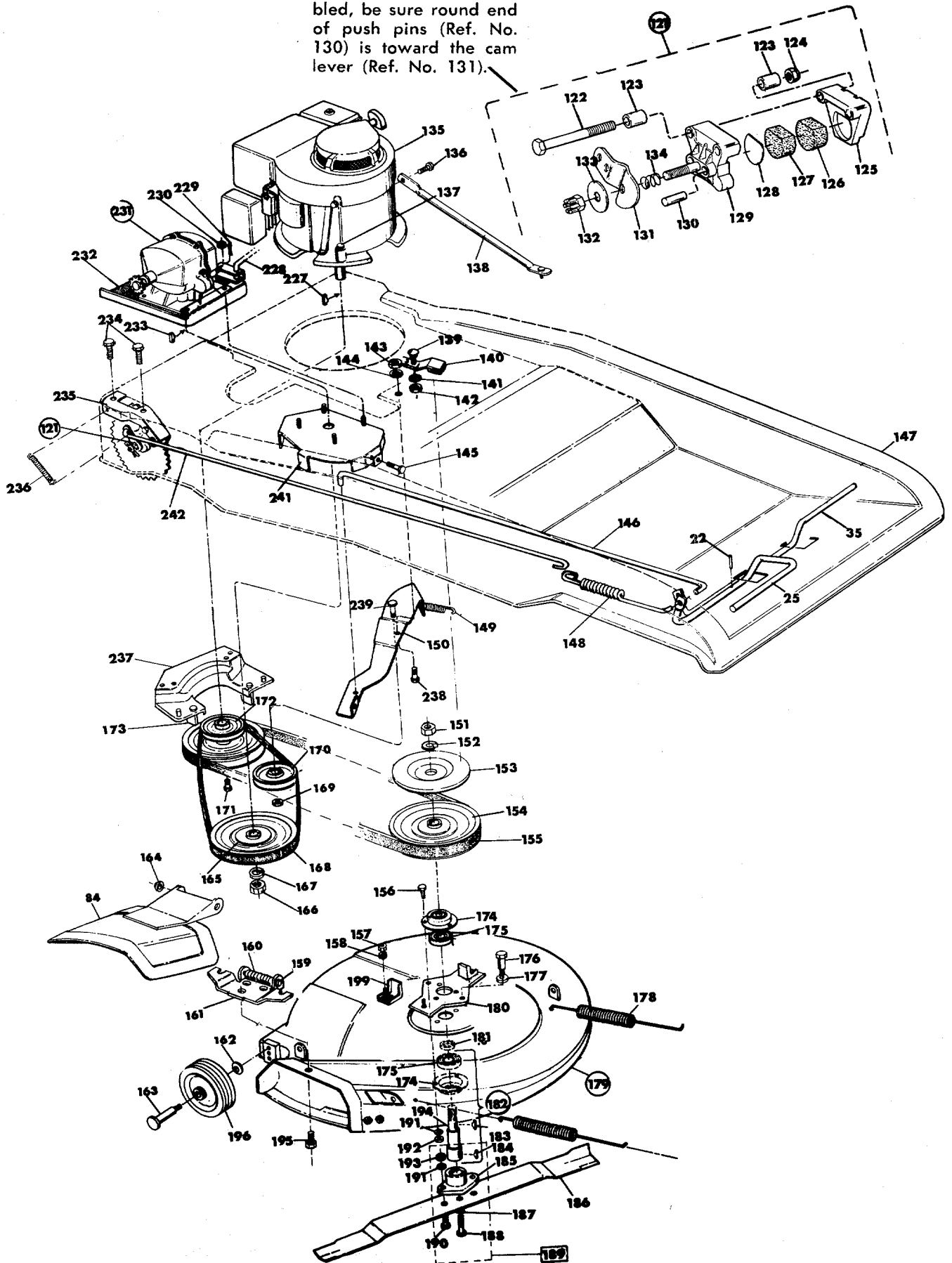


FIGURE 12. EXPLODED VIEW

PARTS LIST FOR MODEL 132-412

When ordering parts, always give the following information as shown in this list:

1. The PART NUMBER
2. The PART NAME
3. The MODEL NUMBER

DO NOT use Reference Numbers when ordering Repair Parts, always use Part Numbers.
Your lawn mower is right hand (R.H.) or left hand (L.H.) as you ride.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	710-224	Hex Hd. Self-Tapping Scr. #10 x .50" Lg. *	82	710-365	Hex Hd. Cap Scr. 1/2-13 x .88" Lg.
2	11528	Engine Box Top Bezel Assembly	83	710-118	Hex Hd. Cap Scr. 5/16-18 x .75" Lg.
3	712-121	Hex Nut #10-24 Thd.*	84	11571	Chute Cover Assembly
4	732-257	Switch Spring	85	312-9714	Rear Wheel Hub Assembly
5	736-338	Fiber Washer	86	10838	Lift Shaft Assembly
6	710-425	Truss Hd. Mach. Scr. #10-24 x .62" Lg.*	87	715-107	Spirol Pin 5/16" Dia. x 1.38" Lg.
7	710-351	Truss Hd. Self-Tapping Scr. #10 x .50" Lg.	89	712-107	Hex Center Locknut 1/4-20 Thd.
8	11263	Handle—Plastic	90	710-136	Hex Hd. Cap Scr. 1/4-20 x 1.75" Lg.*
9	11053	Switch—Bracket Assembly	91	732-231	Torsion Spring
10	712-287	Hex Nut 1/4-20 Thd.*	92	10841	Handle Bracket Assembly
11	312-9909	Seat	93	10837	Lift Handle
	723-190	Seat Cover	94	501-10108	Rear Wheel Assembly—Complete
12	723-208	Steering Wheel	95	712-798	Hex Nut 3/8-16 Thd.*
13	723-207	Steering Wheel Cap	96	736-169	Spring Lockwasher 3/8" Scr.*
14	715-131	Spring Pin Roll 1/4" Dia. x 2.00" Lg.	97	10801	Fender—R.H.
15	710-224	Hex Hd. Self-Tap Scr. #10 x .50" Lg.*	98	715-107	Spirol Pin 5/16" Dia. x 1.38" Lg.
16	746-172	Throttle Control Assembly	99	10824	Side Panel—Engine Box—R.H.
17	710-224	Hex Hd. Self-Tap Scr. #10 x .50" Lg.*	100	10827	Top Panel—Engine Box
18	11373	Steering Box Top Cover	101	722-115	Ball Knob (Transmission)
19	725-269	Safety Switch	102	720-143	Grip
20	712-287	Hex Nut 1/4-20 Thd.*	103	10826	Engine Box Front Panel
21	710-252	Hex Hd. Cap Scr. 1/4-20 x .75" Lg.*	104	736-329	Spring Lockwasher 1/4" Scr.*
22	715-103	Spirol Pin 1/8" Dia. x .75" Lg.	105	710-289	Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*
23	10832	Brake Lever Bracket	106	735-109	Stem Bumper
24	10818	Steering Box Front Cover	107	11535	Top Battery Box Bracket Assembly
25	10848	Foot Pedal Latch Assembly	114	10174	Seat Bracket
26	712-384	Hex Center Locknut 1/2-13 Thd.	115	10825	Side Panel—Engine Box—L.H.
32	712-267	Hex Nut 5/16-18 Thd.*	116	750-140	Steering Wheel Tubing
33	736-119	Spring Lockwasher 5/16" Scr.*	118	310-9921	Bearing Cap
34	10614	Pedal Pad—Vinyl	119	310-9920	Steering Tube Spacer
35	11532	Clutch Foot Pedal Rod Ass'y.	121	761-130	Disc Brake Assembly—Complete
36	11374	Steering Box	122	710-378	Hex Hd. Cap Scr.
37	715-108	Spirol Pin 1/4" Dia. x 1.00" Lg.	123	11-1764-0000	Bushing
42	748-227	Hex Flange Bearing .630" I.D.	124	712-158	Hex Locknut
43	348-9709	Front Axle Ass'y.—L.H.	125	12-1329-0000	Casting—Carrier Side
44	711-198	Tie Rod End	126	15-1154-1049	Friction Pad .250 Thick
45	348-9711	Pivot Bar Assembly	127	15-1154-1079	Friction Pad .450 Thick
46	11376	Front Pivot Bracket	128	03-1345-0000	Disc—Back Up
47	710-198	Hex Sems Cap Scr. 5/16-18 x .75" Lg.*	129	12-1984-0007	Casting—Cam Side
48	712-923	Hex Inserted Jam Nut 3/8-18 Thd.	130	05-1033-0000	Push Pin
49	736-158	Spring Lockwasher 3/8" Scr.*	131	18-1687-0000	Cam Lever
50	310-9922	Steering Shaft Assembly	132	02-1011-0000	Hex Locknut
51	748-227	Hex Flange Bearing .630" I.D.	133	03-1030-0000	Washer
52	711-335	Tie Rod	134	06-1029-0000	Spring
53	710-312	Hex Hd. Cap Scr. 5/8-18 x 1.31" Lg.*	135	—	Engine
54	348-9706	Front Axle Assembly—R.H.	136	710-198	Sems Hex Hd. Cap Scr. 5/16-18 x .75" Lg.
55	735-117	Floor Mat	137	710-442	Hex Hd. Cap Scr. 5/16-18 x 1.50" Lg.*
62	714-507	Cotter Pin 3/32" Dia. x .75" Lg.*	138	10400	Engine Brace Ass'y.
63	734-412	Front Wheel Assembly Complete	139	710-289	Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*
64	711-169	Collar 3/8" I.D.	140	761-147	Blade Brake Assembly
65	710-494	Sq. Hd. Set Scr. 5/16-18 x 1/4" Lg.	141	736-329	Spring Lockwasher 1/4" Scr.*
66	712-267	Hex Nut 5/16-18 Thd.*	142	712-287	Hex Nut 1/4-20 Thd.*
67	736-119	Spring Lockwasher 5/16" Scr.*	143	712-923	Hex Inserted Jam Nut 3/8-18 Thd.
68	348-9721	Pivot Link Assembly	144	736-158	Spring Lockwasher 3/8" Scr.*
69	738-140	Shoulder Bolt .437" Dia. x .18" Lg.	145	710-117	Hex Hd. Cap Scr. 5/16-24 x 1.00" Lg. Heat Treated
70	711-332	Lift Bracket Pin .500" Dia. x .78" Lg.	146	10079	Foot Pedal Rod 27.44" Lg.
71	736-192	Flat Washer .531 I.D. x .93 O.D.	147	10057	Frame
72	714-101	Hair Pin Cotter	148	732-245	Brake Spring
73	348-9761	Deck Link Assembly	149	732-121	Idler Spring
74	348-9735	Connecting Rod	150	11438	Idler Bracket Assembly
75	712-287	Hex Nut 1/4-20 Thd.*	151	712-923	Locknut 3/8" Thd.*
76	736-329	Spring Lockwasher 1/4" Scr.*	152	736-158	Spring Lockwasher 3/8" Scr.*
77	10147	Deck Bracket	153	11073	Brake Disc
78	712-267	Hex Nut 5/16-18 Thd.*	154	756-143	Deck Pulley .63" I.D.
79	736-119	Spring Lockwasher 5/16" Scr.*	155	754-138	"V"-Belt 21/32 x 50" Lg.
80	710-260	Carriage Bolt 5/16-18 x .62" Lg.*	156	710-322	Sems Hex Hd. Cap Scr. 5/16-18 x 1" Lg.*
81	10836	Index Bracket	157	712-267	Hex Nut 5/16-18 Thd.*

PARTS LIST FOR MOWER MODEL 132-412 CONTINUED

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
158	736-119	Spring Lockwasher 5/16" Scr.*	189	10769	Blade Adapter Kit
159	711-571	Pivot Pin	190	710-117	Hex Hd. Cap Scr. 5/16-24 x 1" Lg. Heat Treated
160	732-261	Torsion Spring	191	736-119	Spring Lockwasher 5/16" Scr.*
161	11399	Adapter Plate	192	712-267	Hex Nut 5/16-18 Thd.*
162	736-105	Belleville Washer	193	712-123	Hex Nut 5/16-24 Thd.*
163	738-119	Axle Bolt—Cutting Deck	194	711-405	Blade Spindle
164	726-106	Push-on Flange Palnut	195	710-230	Hex Hd. Cap Scr. 1/4-28 x .50" Lg.*
165	756-175	Transmission Pulley .50 I.D.	196	734-295	Wheel Ass'y. for Cutting Deck
166	712-922	Hex Jam Nut 1/2-20 Thd.*	197	348-9769	Steering Wheel Rim
167	736-921	Spring Lockwasher 1/2" Scr.*	198	310-9767	Steering Wheel—R.H.
168	754-101	"V"-Belt 1/2 x 35.0" Lg.	199	310-9768	Steering Wheel—L.H.
169	712-267	Hex Nut 5/16-18" Thd.*	200	310-9771	Steering Tube Clamp
170	756-116	"V"-Belt Idler 3.06 O.D.	201	710-106	Hex Hd. Cap Scr. 1/4-20 x 1 1/4" Lg.*
171	710-152	Hex Hd. Cap Scr. 3/8-24 x 1.00" Lg.*	202	712-287	Tinnerman Push Nut
172	756-141	Two-Step Engine Pulley	203	712-287	Hex Nut 1/4-20 Thd.*
173	10426	Belt Keeper Assembly	204	710-541	Sheet Metal Scr. #8*
174	310-8253	Bearing Housing	227	714-365	#6 Hi-Pro Key 5/32 x 5/8" Dia.
175	741-919	Ball Bearing	228	10846	Shift Lever Ass'y.
176	738-129	Shoulder Scr. .489" Dia. x 2.005" Lg.	229	714-507	Cotter Pin
177	736-105	Belleville Washer	230	712-429	Hex Elastic Stop Nut 5/16-18 Thd.
178	732-153	Extension Spring	231	717-223	Transmission Assembly—Complete
179	11085	Deck Assembly	232	10247	Transmission Plate
180	14539	Deck Belt Guard Plate Ass'y.	233	714-868	Key Woodruff #9*
181	750-142	Spacer .836 I.D. x 1.01 O.D.	234	710-378	Hex Hd. Cap Scr. 5/16-18 x 1/2" Lg.*
182	10150	Blade Spindle Ass'y.—Complete	235	10245	Disc Brake Bracket Ass'y.
183	714-365	#6 Hi-Pro Key 5/32 x 5/8" Dia.	236	732-157	Spring .38 O.D.
184	714-388	#61 Hi-Pro Key 3/16 x 5/8" Dia.	237	10423	Belt Guard Cup Ass'y.
185	748-189	Blade Adapter	238	711-118	Shoulder Bolt
186	742-127	Blade—25 inch	239	—	Part of Ref. No. 150
187	736-217	Spring Lockwasher 3/8" Scr. Heavy Duty	241	10086	Transmission Belt Guard Ass'y.
188	710-459	Hex Hd. Cap Scr. 3/8-24 x 1 1/2" Lg. Heat Treated	242	11378	Brake Rod

243 713-357 CHAIN #41 1/2 x 67
713-723 #41 M/L

For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally order by part number and size as shown on parts list.

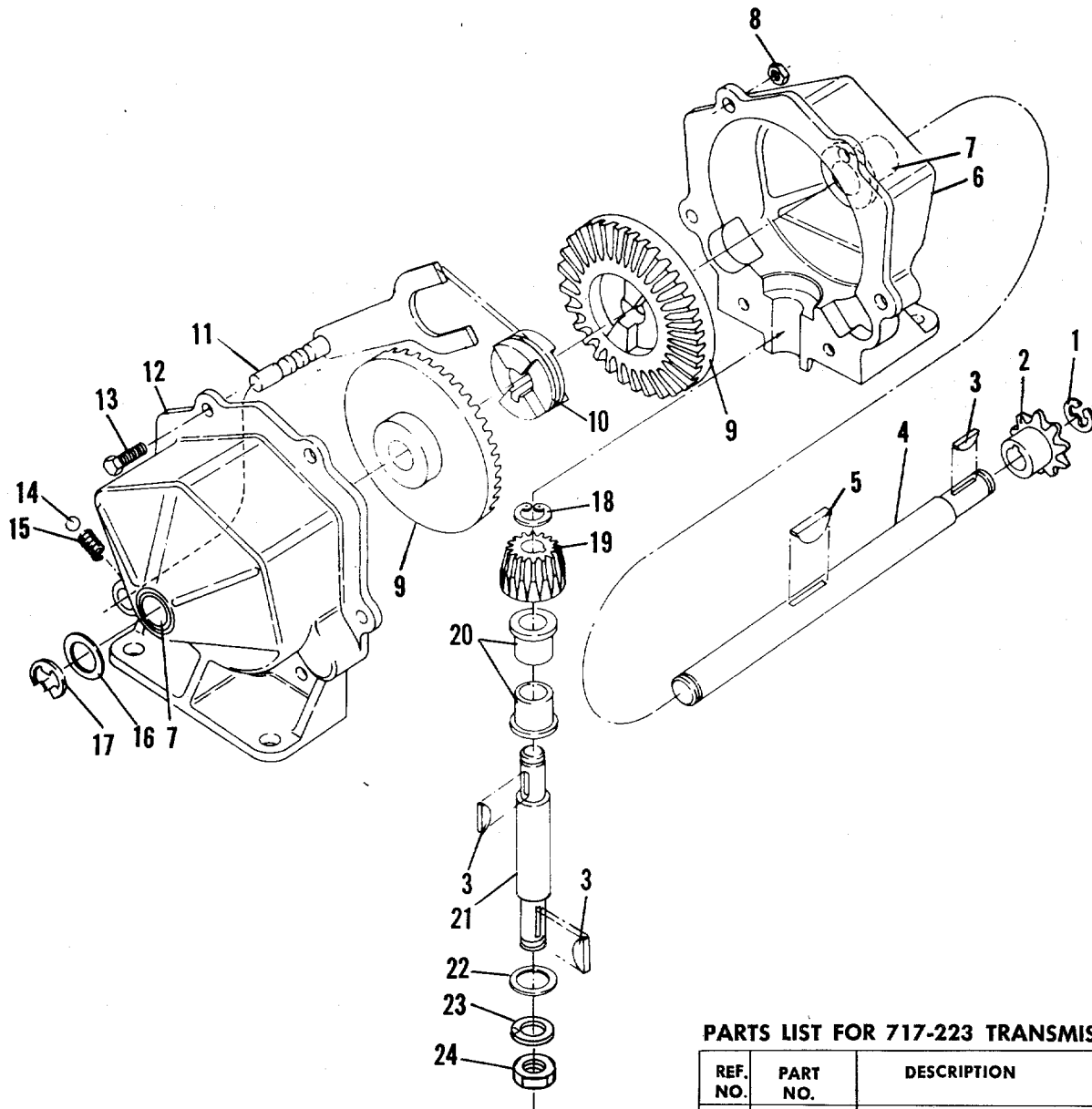
437 Flag Red) When ordering parts if color or finish is important, use the appropriate color code shown at left. (e.g. Flag Red finish—9169 (437).)

246 10405 REAR AXLE ASSY
247 748-151 FLANGE BRG

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."



REVERSING TRANSMISSION



LUBRICATION NOTE

For ease of shifting, use a few drops of oil as needed.

Transmission is prelubricated with four ounces of Lubriplate No. 310 Grease. Use this or an equivalent if service is necessary.

PARTS LIST FOR 717-223 TRANSMISSION

REF. NO.	PART NO.	DESCRIPTION
1	716-104	Snap Ring
2	748-852	Sprocket 8T #41
3	714-129	Key Hi-Pro #4
4	711-854	Shaft Output
5	714-126	Key Hi-Pro #606 (Hardened)
6	717-123	Housing Half
7	748-855	Bearing
8	712-117	Locknut 1/4-28 Thd.
9	748-856	Bevel Gear
10	748-857	Clutch Collar
11	310-8583	Detent Shaft Assembly
12	717-124	Housing Half with Detent Hole
13	710-195	Hex Hd. Cap Scr. 1/4-28 x .62
14	741-862	Detent Ball
15	732-863	Detent Spring
16	736-116	Washer
17	716-106	E-ring
18	716-865	Snap Ring #3100-50
19	748-866	Bevel Pinion
20	748-867	Bearing
21	738-159	Pinion Shaft
22	736-192	Washer
23	736-921	Snap Ring 1/2"
24	712-922	Hex Jam Nut 1/2-20 Thd.

FIGURE 13. MODEL 717-223 TRANSMISSION

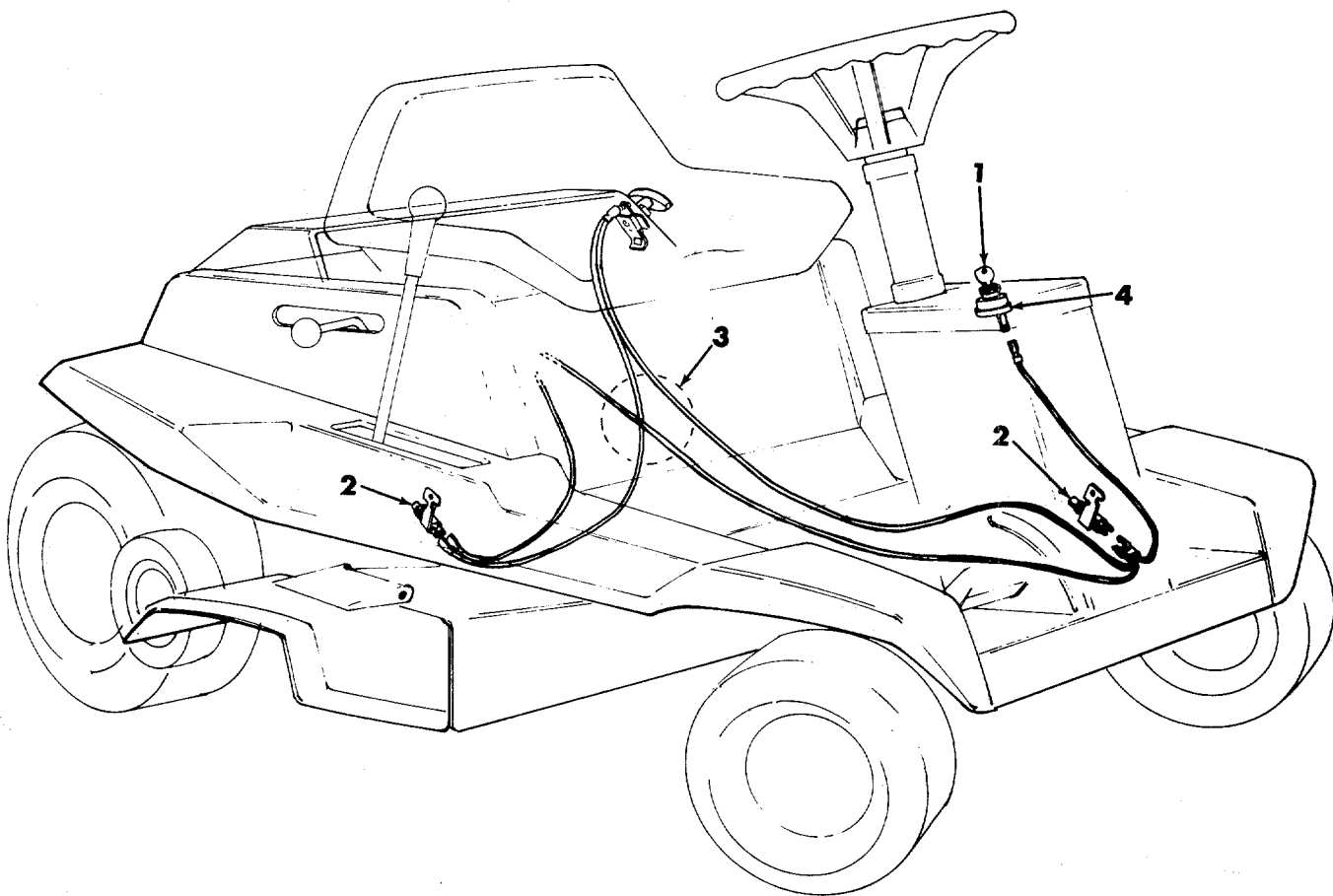


FIGURE 14. ELECTRICAL SYSTEM

PARTS LIST FOR ELECTRICAL SYSTEM

Ref. No.	Part Number	Description
1	725-128	Key Only for Switch
2	725-269	Safety Switch (Red)
3	725-281	Wire Harness
4	725-266	Switch

WARRANTY

For one year from date of purchase, MTD Products Inc. will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. **UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.**

PARTS INFORMATION

MOWER, TILLER, SNOW THROWER AND TRACTOR PARTS

Mower, tiller, snow thrower and tractor parts are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

- A 1 Engine & Mower Co.**
327 East 9th Street
Salt Lake City, Utah 84102
- American Electric Ignition Co.**
124 N. W. 8th Street
Oklahoma City, Oklahoma 73102
- Auto Electric & Carburetor Co.**
2625 4th Avenue, S.
P. O. Box 1948
Birmingham, Alabama 35233
- Automotive Equipment Service Co.**
3117 Holmes Street
Kansas City, Missouri 64109
- Bailey's Rebuild Inc.**
1325 E. Madison Street
Seattle, Washington 98102
- Down Equipment Distributor Inc.**
110 Beech Street
Corydon, Indiana 47112
- Bullard Supply**
2409 Commerce Street
Houston, Texas 77003
- Center Supply Company**
6867 New Hampshire Avenue
Takoma Park, Maryland 20012
- R. T. Clapp Co.**
2016 Magnolia Ave., N. E.
Knoxville, Tennessee 37917
- W. B. Clements**
400 Salem Avenue
Roanoke, Virginia 24016
- Morton B. Collins Co.**
300 Birnie Avenue
Springfield, Massachusetts 01107
- Dixie Sales Company**
P. O. Box 1408
327 Battleground Avenue
Greensboro, North Carolina 27402
- East Point Cycle & Key Shop**
1617 Whiteway
East Point, Georgia 30044
- Gamble Distributors**
West End Avenue
Carthage, New York 13619
- Garden Equipment Co., Inc.**
6600 Cherry Avenue
Long Beach, California 90805
- Henzler, Inc.**
2015 Lemay Ferry Road
St. Louis, Missouri 63125
- Frank E. Ives & Son**
1101 Lincoln Avenue
Prospect Park, Pennsylvania 19076
- J. W. Jewett Co.**
981 Folsom Street
San Francisco, California 94107
- Kenton Supply**
8216 North Denver Avenue
Portland, Oregon 97217
- Kimber's Inc.**
615 W. Genesee Street
Syracuse, New York 13204
- Marr Brothers**
423 E. Jefferson
Dallas, Texas 75203
- Mathews Auto Electric Co.**
420 East 2nd Street
Tulsa, Oklahoma 74120
- McClure Lawn & Garden Supply**
1114 Lexington Avenue
Mansfield, Ohio 44907
- Memphis Cycle & Supply Co.**
421 Monroe Avenue
Memphis, Tennessee 38103

ENGINE PARTS AND SERVICE

Engine parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing *Engines — Gasoline*, Briggs and Stratton or Tecumseh Lauson — Power Products.

- Moz-All of Florida, Inc.**
365 Greco Avenue
Coral Gables, Florida 33146
- National Central, Div. of Joe Sterling, Inc.**
Drawer "D" 687 Seville Rd.
Wadsworth, Ohio 44281
- Power Equipment Distributor**
36463 So. Gratiot Avenue
Mt. Clemens, Michigan 48043
- Parts & Sales Inc.**
335 West St. Charles Road
Villa Park, Illinois 60181
- Power Lawn & Garden Equip. Co.**
2551-2571 J. F. Kennedy Road
Dubuque, Iowa 52001
- Raub Supply Company**
James & Mulberry Sts.
Lancaster, Pennsylvania 17604
- Radco Distributors**
2403 Market Street
P. O. Box 3216
Jacksonville, Florida 32206
- Richmond Battery & Ignition**
P. O. Box 25369 — 957 Myers St.
Richmond, Virginia 23260
- Smith Hardware Company**
515 N. George Street
Goldsboro, North Carolina 27530
- South Denver Lawn Equip. Co.**
527 West Evans
Denver, Colorado 80223
- Suhren Engine**
8330 Earhart Blvd.
New Orleans, Louisiana 70118
- Sutton's Lawn Mower Shop**
Route 4, Box 343
North Little Rock, Arkansas 72117
- Warner Equipment**
7520 Lyndale Avenue, So.
Minneapolis, Minnesota 55423